

REMARKS

Applicants respectfully request reconsideration of the above referenced patent application in view of the amendments and remarks set forth herein, and respectfully request that the Examiner withdraw all rejections. Claims 1-23 have been amended. No claims have been canceled. No claims have been added. Thus, claims 1-23 are pending.

35 U.S.C. §101 Rejections

The Office Action rejects claims 1-23 under 35 U.S.C. §101 as being directed toward non-statutory matter. More particularly, the Office Action alleges that claims 1-23 merely manipulate abstract ideas without a claimed limitation to a practical application. Claims 7-9 and 20-23 are further rejected under 35 U.S.C. §101 for reciting an allegedly non-statutory “machine-readable medium”. Applicants traverse the above rejection for at least the following reasons.

The above rejected claims include independent claims 1, 4, 7, 10, 15 and 20, which are each amended herein to variously recite, for example, “processing the received speech information based on the scaled decision tree-based acoustical mode”, or “processing the received speech information based on the trim-down general acoustical model.” Applicants respectfully submit that the processing of speech information variously recited in the currently amended claims constitutes a useful, concrete and tangible result according to 35 U.S.C. §101.

Applicants further amend claims 7-9 and 20-23 to variously recite, “A computer-readable medium having instructions stored thereon, which if executed by a processor...” Applicants respectfully submit that the currently amended claims are directed to subject matter tangibly embodied so as to be executable. Applicants submit that the currently amended claims meet the requirements for statutory subject matter as required by 35 U.S.C. §101. For at least the foregoing reasons, Applicants request that the above 35 U.S.C. §101 rejection of claims 1-23 be withdrawn.

35 U.S.C. §102 Rejections

The Office Action rejects claims 1-23 under §102(b) as being anticipated by Bandara et al., USPN 5,899,973 ("*Bandara*"). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, wherein the identical invention is shown in as complete detail as is contained in the claim. *See* M.P.E.P. §2131. The Office Action alleges that *Bandara* discloses, *inter alia*, scaling a decision tree-based model for a given task. Applicants traverse the above rejection for at least the following reasons.

The above rejected claims include independent claims 1, 4, 7, 10, 15 and 20. Independent claim 1 is amended herein to recite in a salient portion (emphasis added):

“...**scaling a decision tree-based acoustical model**...wherein the scaling merges at least one node of the decision tree-based acoustical model...**based on a subset of the vocabulary which is used in a given task**;
receiving **speech information of the given task**; and
processing the received speech information based on the scaled decision tree-based acoustical model.”

Each of currently amended claims 4, 7, 10, 15 and 20 includes similar claim limitations. These claim amendments are supported in the original disclosure at least by FIGS. 1, 2 and 3A-3D and by page 4, lines 1-13, page 5, lines 3-17 and page 6, lines 12-31 of the specification. Applicants respectfully submit that each of claims 1-23 is not anticipated by *Bandara*, based at least on the failure of the reference to teach or suggest – as variously recited in the independent claims – processing received speech information of a given task based on a scaled decision tree-based acoustical model, the scaling based on a vocabulary subset which is used in the given task.

The claims are amended herein to more particularly indicate that a decision tree-based acoustical model is scaled **based on a vocabulary subset** which is used in a **given task**, and that the received speech information is received speech information **of that given task**. By contrast, *Bandara* describes reducing the size of the language model by discarding n-grams which **the acoustic part of the system can recognize most**

accurately without support from a language model. *See*, e.g. Abstract. In the exemplary case of Fig. 4 and the description thereof in *Bandara*, the discarding of a given trigram is based on a weighting function g for the trigram, defined terms of an acoustic distance a , a predictive power (a relative frequency) of the trigram f , and a weighting coefficient k . If, for a given trigram, g surpasses the threshold, then the trigram is discarded. *See*, e.g., col. 5, line 51-col. 6, line 8.

Applicants submit that reducing the size of the language model based on which n-grams **can be recognized most accurately** does **not** anticipate scaling a decision tree-based acoustical model **based on a vocabulary subset** which is used in a given task. More particularly, the question of whether a particular word, for example, is used in a given task is separate from the question of whether that word is more or less accurately recognized by an acoustic part of a system without support from a language model. The Office Action **fails** to indicate that any other excerpts of *Bandara* disclose, for example, reducing the size of the language model by discarding n-grams which are not used in a particular task. Assuming, *arguendo*, that all other elements of the claimed invention were anticipated by *Bandara*, which Applicants do not agree, *Bandara* still fails to disclose processing received speech information of a given task based on a scaled decision tree-based acoustical model, the scaling based on a vocabulary subset which is used in the given task.

For at least the foregoing reasons, each of independent claims 1, 4, 7, 10, 15 and 20 includes at least one limitation which is not anticipated by *Bandara*. In depending directly or indirectly from one of these independent claims, each of dependent claims 2, 3, 5, 6, 8, 9, 11-14, 16-19 and 21-23 incorporates at least one limitation not taught by the reference. Therefore, Applicants request that the above 35 U.S.C. §102(b) rejection of claims 1-23 based on *Bandara* be withdrawn.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the objections and rejections have been overcome. Therefore, claims 1-23 are in condition for allowance

and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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